Express Mail Label No. EV 516207647 US

Application No. 10/616,156 Amendment dated July 5, 2005 Reply to Office Action dated April 5, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Attorney Docket No.: N1085-00127

[TSMC 2002-0989]

Listing of Claims:

Claims 1 to 8 (Canceled).

- 9. (Currently Amended): A method comprising the steps of: 1 providing a printed circuit board having a circuit trace thereon and a solder mask over the 2 3 circuit trace; 4 testing the circuit trace; determining that the tested circuit trace contains a defect; 5 removing the solder mask from the printed circuit board using an ultra violet laser_after 6 the determining step, to expose the circuit trace without damaging the circuit trace; and 7 performing failure analysis on the circuit trace of the printed circuit board, thereby 8 determining a cause of the defect. 9
- 1 10. (Original): The method of claim 8, wherein the ultraviolet laser has a wavelength of from
- 2 about 3 nanometers to about 400 nanometers.
- 1 11. (Original): The method of claim 9, wherein the ultraviolet laser has a wavelength from
- the group consisting of 355 nanometers and 266 nanometers.
- 1 12. (Original): The method of claim 9, wherein the ultraviolet laser is one of the group
- 2 consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.
- 1 13. (Original): The method of claim 12, wherein the ultraviolet laser is a yttrium aluminum
- 2 garnet laser.

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- 1 14. (Original): The method of claim 9, wherein the solder mask comprises an organic
- · 2 compound.
- 1 15. (Original): The method of claim 9, wherein the solder mask comprises a thermosetting
- 2 resin.
- 1 16. (Original): The method of claim 15, wherein the solder mask comprises a film selected
- 2 from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing
- 3 type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy
- 4 compound.
- 1 17. (Withdrawn): A printed circuit board suitable for failure analysis, the printed circuit
- 2 board being prepared by a method comprising the steps of:
- providing a printed circuit board having a circuit trace thereon and a solder mask over the
- 4 circuit trace;
- 5 removing the solder mask from the printed circuit board using an ultra violet laser, to
- 6 expose the circuit trace without damaging the circuit trace, thereby readying the printed circuit
- 7 board for performing failure analysis on the circuit trace thereof.
- 1 18. (Withdrawn): The printed circuit board of claim 17, wherein the ultraviolet laser has a
- 2 wavelength of from about 3 nanometers to about 400 nanometers.
- 1 19. (Withdrawn): The printed circuit board of claim 17, wherein the ultraviolet laser has a
- 2 wavelength from the group consisting of 355 nanometers and 266 nanometers.
- 1 20. (Withdrawn): The printed circuit board of claim 17, wherein the ultraviolet laser is one of
- 2 the group consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.

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- 1 21. (Withdrawn): The printed circuit board of claim 20, wherein the ultraviolet laser is a
- . 2 yttrium aluminum garnet laser.
- 1 22. (Withdrawn): The printed circuit board of claim 17, wherein the solder mask comprises
- 2 an organic compound.
- 1 23. (Withdrawn): The method of claim 17, wherein the solder mask comprises a
- 2 thermosetting resin.
- 1 24. (Withdrawn): The printed circuit board of claim 23, wherein the solder mask comprises a
- 2 film selected from the group consisting of polyimide and cyanate ester resins and a dual solution
- 3 photo-curing type material containing an unsaturated resin that includes carboxylic acid and a
- 4 polyepoxy compound.
- 1 25. (Withdrawn): A device suitable for failure analysis, the device being prepared by a
- 2 method comprising the steps of:
- providing a substrate having a circuit trace thereon and a solder mask over the circuit
- 4 trace;
- removing the solder mask from the substrate using an ultra violet laser, to expose the
- 6 circuit trace without damaging the circuit trace, thereby readying the substrate for performing
- 7 failure analysis on the circuit trace thereof.
- 1 26. (Withdrawn): The device of claim 25, wherein the ultraviolet laser has a wavelength of
- 2 from about 3 nanometers to about 400 nanometers.
- 1 27. (Withdrawn): The device of claim 25, wherein the ultraviolet laser has a wavelength from
- 2 the group consisting of 355 nanometers and 266 nanometers.

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- 1 28. (Withdrawn): The device of claim 25, wherein the ultraviolet laser is one of the group
- . 2 consisting of a solid state laser, a gas laser, a dye laser, and an excimer laser.
- 1 29. (Withdrawn): The device of claim 28, wherein the ultraviolet laser is a yttrium aluminum
- 2 garnet laser.
- 1 30. (Withdrawn): The device of claim 25, wherein the solder mask comprises an organic
- 2 compound.
- 1 31. (Withdrawn): The device of claim 25, wherein the solder mask comprises a thermosetting
- 2 resin.
- 1 32. (Withdrawn): The device of claim 25, wherein the solder mask comprises a film selected
- 2 from the group consisting of polyimide and cyanate ester resins and a dual solution photo-curing
- 3 type material containing an unsaturated resin that includes carboxylic acid and a polyepoxy
- 4 compound.
- 1 33. (New): The method of claim 9, wherein the failure analysis includes visually inspecting
- 2 the circuit trace.
- 1 34. (New): The method of claim 9, wherein the failure analysis includes performing a
- ·2 scanning electron microscope inspection of the circuit trace.